Six-month and one-year effects of Project EX-4: A classroom-based smoking prevention and cessation intervention program

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Abstract

Objective: This study evaluated the efficacy of a version of Project EX that was adapted for implementation in the classroom context (Project EX-4). This paper reports the program outcomes based on pretest, six-month, and one-year follow-up surveys.

Methods: An 8 session classroom-based curriculum was tested with a clustered randomized controlled trial that involved a total of 1097 students in 6 program and 6 control alternative high schools. Weekly and monthly smoking was assessed at the three time points. Outcome effects were analyzed with multi-level random coefficients models.

Results: Students in the program condition experienced a greater reduction in weekly smoking and monthly smoking, at 6-and-12-month follow-ups. The net change varied between \(-5.1\%\) and \(-7.6\%\), comparing the program condition to the control condition.

Conclusions: The implementation of Project EX in a classroom setting produced decreases in smoking among students in the program, relative to those in the standard care control condition. It is likely that a classroom-based smoking prevention/cessation program can lead to lower overall smoking prevalence than a cessation program that is implemented in a school-based smoking cessation clinic format.

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Keywords: Teen smoking; Prevention; Cessation

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1. Introduction

Most regular adolescent tobacco users continue to use tobacco into adulthood (Backinger, Fagan, Matthews, & Grana, 2003; Flay, 1993). In addition, approximately 40% of adolescent smokers who have smoked in the last month report having tried to quit at some point in the past and failed (Lynch & Bonnie, 1994; U.S. Department of Health and Human Services, 1994). Programs developed to facilitate teen tobacco use cessation have been few in number, and most have been poor in research design (Lynch & Bonnie, 1994; Sussman, 2002; U.S. Department of Health and Human Services, 1994).

Project EX is an empirically validated teen tobacco use cessation program that has shown positive six-month outcome effects in two experimental trials and one multiple baseline single group trial (Sussman et al., 2004). In these first three studies, the intervention that we evaluated was a tobacco use cessation program delivered as a school-based clinic to adolescent smokers. Youth volunteered to join the program. Youth were reached through utilizing numerous recruitment strategies, and were treated in multiple clinics of 8–20 smokers at each school.

The Project EX clinic program is derived from a motivation-coping skills-personal commitment model of teen cessation. In other words, the program tries to enhance one’s motivation to quit immediately and sustain a quit attempt, provides coping skills to encourage and support quit efforts, and tries to elicit a personal commitment to quit smoking. More specifically, motivation enhancement involves having youth (a) generate reasons to quit tobacco use, including discussion of information on the many dangers of tobacco use, and involve youth participation in scripted games and talk shows to help them see (b) the effects of their tobacco use on others, (c) that tobacco use may increase (not decrease) one’s stress level over time, (d) that there are many negative effects of passive smoking, (e) that the longer one sustains a quit attempt the easier it is to stay stopped, and (f) that it is easier and less hazardous to quit now rather than wait until one is older. Coping Skills instruction includes providing information and practice on (a) selecting a quit approach, (b) getting through withdrawal symptoms, (c) coping with stress, (d) surmounting cognitive barriers to quitting, (e) relaxation (healthy breathing exercise, floating relaxation exercise, yoga), (f) achieving good nutrition, (g) anger management (assertiveness training and meditation), and (h) avoiding relapse. Commitment in this curriculum pertains to making a personal commitment to quit and subsequently reviewing the commitment. Use of games and talk show “skits” are examples of how the program was developmentally tailored to an adolescent age group.

The first trial (EX-1) demonstrated the relative efficacy of the clinic program compared to standard care among alternative high school youth at a three-month post-program follow-up (five-month post-quit day), utilizing an experimental design (Sussman, Dent, & Lichtman, 2001). Next, this program showed promise of generalizability among high school youth in China (Zheng et al., 2004) in a multiple baseline single group design (EX-2). The third trial (EX-3) showed that the effects could last over a six-month follow-up for youth at both alternative and comprehensive high schools. The third study also compared EX with and without use of nicotine gum, with no differences found between the two program conditions (Sussman et al., 2004). Through this work, our research group found intent-to-treat program quit rates of 14–17% compared to control group 30-day quit rates of 3–8%, indicating that EX program quit rates at least doubled those found in control comparisons (Sussman et al., 2004).

While these previous school-based clinic versions of Project EX are effective, program reach is limited to those who attend the clinic (approximately 30% of smokers at a school). Reach is no longer a problem if the cessation program is delivered in a classroom setting. Both tobacco users and nonusers are found in
the classroom setting. The current study, Project EX-4, focused on adapting the previous school clinic-based EX program to a classroom-based setting for smoking cessation among older teen smokers and smoking prevention for non-smokers. In addition, non-smokers could serve as a means of social support for those trying to quit smoking.

This programming was completed among youth attending alternative high schools in southern California (referred to as “continuation” high schools). Continuation high school (CHS) students have transferred out of the regular system in California due to functional problems (e.g., lack of credits, drug use), and to fulfill a California mandate that all youth receive at least part-time education until they are 18 years of age (California Educational Code Section 48400; established in 1919). CHS students report almost twice the amount of last 30-day use of cigarettes as regular high school (RHS) students (Sussman et al., 2004). Youth at continuation high schools (CHSs) who do not smoke are confronted with smoking among their peers on a daily basis. This would seem an appropriate context to reach all enrolled youth with tobacco use education programming, to prevent potential future use as well as stop current use. Also, tobacco use addiction and cessation is an important topic to be instructed by the time youth finish attending high school, because of the significant financial and societal costs of addiction.

This paper focuses on the six-month and one-year self-reported behavioral outcomes of Project EX-4. A previous paper reported on the implementation and immediate outcomes of the project (Sun, Miyano, Rohrbach, Dent, & Sussman, 2007). The program was well-received and produced immediate effects on self-reported weekly smoking behavior. We hypothesized that the classroom-based curriculum would show maintenance of effects among the full sample at a six-month and twelve-month follow-ups. At these follow-ups, we measured monthly smoking as well as weekly smoking, since the program had ended long enough in the past to be able to measure monthly smoking.

2. Method

2.1. School selection and experimental design

Twelve continuation high schools from four counties in southern California (Los Angeles \(n=7\) schools), Ventura \(n=2\) schools, Orange \(n=2\) schools, and San Diego \(n=1\) school), were recruited as a convenience sample for participation in this study. The schools were randomly assigned to one of two experimental conditions: treatment or standard care (control); resulting in a sample of six schools per condition. Schools were blocked prior to assignment by school size, ethnicity composition, average social economic status, and % of students in classes with English as second language. Specifically, six pairs of schools were aligned using a linear composite of factor scores across a tobacco use inflate-suppress continuum (Graham, Flay, Johnson, Hansen, & Collins, 1984) and randomly assigned to the two conditions. Within each program high school, project staff delivered the curriculum to all students enrolled in the subject area selected by the school for program implementation (health, science, biology, or physical education). In the standard care control condition, students received only the tobacco prevention or cessation activities, if any, provided directly by their school. Students in both the program and control conditions were administered a questionnaire at pretest. Each condition was provided with a second assessment (“immediate posttest”) an average of 5.5 weeks (range of 4 to 6 weeks) after the pretest. In addition, all subjects were assessed again 6 months and 1 year after the immediate posttest.
2.2. Project EX curriculum

The classroom curriculum is closely adapted from the Project EX clinic program (Sun et al., 2007; Sussman et al., 2001). It involves eight sessions delivered over a six-week period. The first four sessions are held in a two-week period. During that time, students are prepared to strengthen their resolve not to use tobacco in the future. The second four sessions are held approximately once per week during the following month and are focused on intentions not to use tobacco, or quit-attempts. Session 1 imparts the ground rules for the class, and discusses reasons for using, not using, quitting tobacco, or remaining tobacco free. Also the talk show “family and friends confront smokers about their habit” is completed. The smoker role talks about being nagged, whereas family members express their worries and how the smoker has become more irritable after becoming a smoker. As another activity, an experiment is requested in which the smoker attempts not to smoke in a situation within which he or she usually smokes, and discusses in the next session how that felt. Non-smokers choose one situation in which they are around people smoking tobacco and notice how they feel (e.g. did the second hand smoke bother them). Non-smokers who are never around smokers notice where there is any evidence of tobacco (e.g. corner store, advertisements, cigarette butts on the street, etc.) and discuss how they feel about it.

Session 2 discusses how tobacco use can cause, rather than relieve stress. The talk show “your cigarettes may be stressing you out” is completed. “Guests” include an ex-smoker, psychologist and a physician. Guests discuss how tobacco use actually increases stress. Youth learn healthy ways (skills) to cope with stress. Also, students are instructed how smoking hurts one’s breathing, and are provided with exercises on “healthy breathing”. Information also is provided on tobacco industry marketing tactics and how they target youth. Session 3 discusses the harmful substances in tobacco and how it can injure one’s body. Youth also play the game “is smoking on the menu.” Students create a menu of possible categories, and “order” questions regarding the dangers of passive smoke as a group competition.

Session 4 discusses addiction to tobacco. The first step of breaking an addiction by making a commitment to quit and methods of quitting are discussed. Physical and psychological aspects of withdrawal are discussed. They also play the talk show “quitting smoking: I’ve been there and it does get better.” This talk show describes guests who are smokers at different stages of the quitting process. Smokers can make personal commitments to quit. Non-smokers can make personal commitments to remain tobacco free and serve as a “listening ear” to assist those who may be trying to quit.

Session 5 discusses more about nicotine addiction, and strategies of avoiding addiction or managing withdrawal symptoms. Psychological coping includes self-forgiveness and avoiding false expectations regarding how not using tobacco or quitting will and will not affect one’s life. Session 6 involves learning lifestyle balance strategies including weight control. Students also practice a “yoga activity,” in which students learn several easy postures that they can use to feel more relaxed. Session 7 involves learning more coping strategies including assertiveness training and anger management. Participants also learn the “letting feelings pass” meditation activity. This is a novel activity, in which participants learn that sometimes just letting feelings pass can be more effective than reacting to them. They learn relaxation and breathing meditations. Finally, Session 8 involves learning means to avoid using tobacco again, or staying tobacco free, and mentions how topics covered in the tobacco education program could be applicable to other substances. Youth also participate in the talk show “warning: waiting to quit smoking may be hazardous to your peace of mind.” They learn that it’s better to not use tobacco in the future or quit and stay stopped when you are young, due to an accumulation of negative tobacco-related consequences with age.
2.3. Subjects

School enrollment and consent information were collected simultaneously. For the 12 CHSs in the study, a total of 2020 students were enrolled in the classrooms selected for participation in the study. This was 64.5% of the total enrollment \((n=3139)\) for all 12 schools combined. An average of 8 classes was selected per school, with a range of 5 (smallest schools) to 13 classes (largest schools). Of the 2020 students enrolled in the classes selected, 1367 were consented for participation in the study (67.7% of the total enrolled). Of the 1367 consented students, 1097 took the pretest survey (86.2%; 532 in control and 565 in program condition). Among the 1097 subjects that participated in the pretest survey, 878 (391 in control and 487 in program condition) also completed immediate post-program questionnaires (80.0% retention rate). Furthermore, 865 (426 in control and 439 in condition) and 710 (335 in control and 375 in condition) students also completed the post-program questionnaires in the six-month (78.9% retention rate) and one-year (64.7% retention rate) follow-up, respectively.

Subjects varied from 13 to 19 years of age (mean age=16.5 years, SD=1.0 years) at pretest. The sample was 62.7% male; 16.4% white, 70.9% Hispanic, 3.5% Asian, 5.1% African American, and 4.1% other ethnicity. Further, 51.7% of the students lived with both parents; approximately 47% of youths’ fathers and 49% of youths’ mothers completed high school. Modal occupations among fathers were skilled laborers (39.5%) and minor professionals or small business owners (26.9%). Modal occupations among mothers were minor professionals, semi-skilled worker, or semi-skilled laborers (39.9%) while 29.4% were housewives or homemakers. Approximately 33% of the students were weekly smokers and 42% were monthly smokers. Approximately 52% reported that they may smoke in the next 12 months.

2.4. Data collection and measures

Pretest and three posttest (immediate, 6 month, and 1 year) measures were collected from students using a self-report, closed-ended and fill-in-the-blank response questionnaire. Questionnaires were administered over one class period. Demographic items included age (in years), gender, ethnicity (coded as non-Hispanic white, Hispanic, Black, Asian, or other), mixed ethnicity (y/n), current living situation (with parents, alone, other), and parents’ education (mean response across father’s (or stepfather’s) and mother’s (or stepmother’s) educational levels based on categories derived from (Hollingshead & Redlich, 1958), and self reported academic performance (4 categories ranging from “poor” to “very well”).

Smoking behavior items included weekly use of cigarettes, which was assessed with the item asking “how many cigarettes have you smoked in the last seven days?” and a similarly constructed item that assessed monthly (last 30-day) use of cigarettes. The responses could be a number from “0” to “100+” and were fill-in-the-blank type. Nicotine dependence was assessed using the modified Fagerstrom nicotine dependence scale (mFDQ; Prokhorov et al., 2000). To assess behavioral intention, students were asked how likely it is they would smoke cigarettes in the next 12 months (5 response categories ranging from “1: definitely not” to “5: very likely”).

A pipeline assessment protocol was conducted, where self-reported weekly and monthly cigarette use were measured together with CO level, which was assessed with the use of a vitalograph (e.g., see Sussman et al., 2001). In addition, the correlation coefficients between pretest and posttest measures among the control subjects established the test–retest reliability of the weekly and monthly smoking measures. The correlation was 0.66 for weekly smoking and 0.70 for monthly smoking between two self-
reports collected approximately 5 weeks apart. Among the control subjects, the pretest to posttest change in mean value was \(-0.7\% (p=0.66)\) for weekly smoking and \(-0.3\% (p=0.89)\) for monthly smoking. These coefficients are very similar to previous work (Graham, Flay, Johnson, Hansen, Grossman et al., 1984; Needle, McCubbin, Lawrence, & Hochhauser, 1983; Stacy et al., 1990).

2.5. Data analysis

Data analysis for program effects was completed by using a generalized mixed-linear model (Murray & Hannan, 1990) using the SAS statistical package (TM, 2000). Condition was considered a fixed effect variable; fixed at desired experimental levels (school). School was considered as a random factor (within program conditions). This specification allows both the statistical accounting for the intra-class correlation within clustered units (school) on computed significance levels and for the logical generalization of findings beyond the specific sample. The variables evaluated in this analysis include the dichotomous indicators (no for “0” and yes for “>0”) for monthly smoking and weekly smoking. The variables adjusted for in the analyses included age, gender, ethnicity, and modified Fagerstrom nicotine dependence level (Prokhorov et al., 2000). Because the hypotheses were a priori directional ones assuming that the program effects on the outcomes would be positive, a one-tailed significance test was employed.

3. Results

3.1. Assessment of attrition bias at follow-ups

To assess the potential sampling bias due to attrition at the six-month and one-year follow-ups, a comparison was made on eight key baseline measures between the sample that was lost at the six-month follow-up (n=232) and the six-month analysis sample (retained, n=865). In addition, the sample that was lost at 1 year (n=387) was compared to the one-year analysis sample of 710 subjects. Measures included: age, gender, ethnicity, living with both parents-or-not, parents’ education, 30-day cigarette use, weekly cigarette use, and daily cigarette use. The comparisons utilized chi square or t-test models to indicate statistically significant differences. Since no directionality of attrition was hypothesized, two-tailed p values at the .05 level were used. As shown in Table 1, the retained sample differed from the lost-to-follow-up sample at the six-month survey on age, ethnicity, gender, living situation, parents’ education level, and cigarette smoking prevalence. Compared with the ‘lost’ sample, the ‘retained’ sample was slightly younger, contained more Hispanic (74\% vs. 60\%, \(p<0.0001\)) and less white (14\% vs. 25\%, \(p=0.0001\)) subjects, more female subjects (39\% vs. 30\%, \(p<.01\)), more students that lived with both parents (55\% vs. 39\%, \(p<.0001\)), a lower educational level among students’ parents (2.9 vs. 3.3, \(p<.0001\)), and a lower prevalence on the smoking outcome variables (e.g., 25\% daily smoking vs. 41\%, \(p<.0001\)). Some of these statistically significant differences were found at the one-year follow-up as well; that is, fewer whites and more Latinos, more students who lived with both parents, lower levels of parental education, and a lower prevalence of cigarette smoking among students in the retained sample relative to those lost-to-follow-up. Because data on cigarette smoking and demographic characteristics were not measured among students who did not participate in the study, generalizability of the findings is limited to a population with pretest measurement access restrictions like those experienced in this study (e.g., absentees and those who refused consent were not included). The retention rate did not differ across condition at the six-month and one-year follow-ups. At the six-month follow-up survey, the retention rate
was 80.1% in the control group and 77.7% in the program group ($p=0.34$ control vs. program). At the one-year follow-up survey, it was 63.0% in the control group and 66.4% in the program group ($p=0.24$ control vs. program).

### 3.2. Program effects at six-month and one-year follow-ups

Table 2 presents the program effects at six-month and one-year post-program. The findings indicate that, after adjusting for baseline cigarette smoking, baseline nicotine dependence level, age, gender, and ethnicity, the intervention reduced monthly and weekly smoking. At the six-month follow-up, the

<table>
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<th>Table 2</th>
<th>Program effects (program vs. control) at follow-ups</th>
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<tr>
<td></td>
<td>Weekly</td>
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<tr>
<td><strong>Six-month</strong></td>
<td></td>
</tr>
<tr>
<td>Net % change$^a$</td>
<td>$-7.6%$</td>
</tr>
<tr>
<td>OR (95% CI)$^{a,b}$</td>
<td>$0.33$ (0.13–0.84)</td>
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<tr>
<td><strong>One-year</strong></td>
<td></td>
</tr>
<tr>
<td>Net % change$^a$</td>
<td>$-5.1%$</td>
</tr>
<tr>
<td>OR (95% CI)$^{a,b}$</td>
<td>$0.59$ (0.36–0.97)</td>
</tr>
</tbody>
</table>

$^a$ Adjusted for baseline smoking, age, gender, ethnicity, and Fagerstrom Nicotine Dependence Score.

$^b$ 95% CI calculated on one-tailed *a priori* hypothesis test.
program reduced the prevalence of weekly and monthly smoking by 7.6% and 6.0%, respectively. At the one-year follow-up, the program reduced the prevalence of weekly and monthly smoking by 5.1% and 6.9%, respectively. A model that is more appropriate statistically because it allows for LOGIT conversion of the dichotomous smoking outcomes, demonstrated that after adjusting for the same covariates, subjects in the program condition were less likely to report weekly and monthly smoking at both the six-month and one-year follow-ups. Specifically, relative to the subjects in control condition, the odds ratio for subjects in program condition on weekly smoking was 0.33 (95% CI: 0.13–0.84, \( p=0.03 \)) at the six-month follow-up, and 0.59 (95% CI: 0.36–0.97, \( p=0.04 \)) at the one-year follow-up. The odds ratio for subjects in the program condition on monthly smoking was 0.47 (95% CI: 0.30–0.73, \( p=0.006 \)) at the six-month follow-up and 0.50 (95% CI: 0.34–0.73, \( p=0.003 \)) at the one-year follow-up. The results failed to differ with or without controlling for county where the school was located.

4. Discussion

Project EX-4 was designed to produce smoking prevention and cessation effects in the same program. This study tested the effects of the prevention/cessation program utilizing a controlled, randomized experimental design. Students in the program condition reported moderately favorable ratings of the program and showed significant increases in program-specific knowledge compared to the standard care control condition (Sun et al., 2007). Students in the program condition also reported being less likely to smoke in the next 12 months, and their self-reported weekly smoking was lowered by about 5% compared with those in the control group, controlling for potential confounders (e.g., age, gender, and ethnicity). This pattern of findings held up at both the six- and twelve-month follow-ups.

The original Project EX school-based clinic smoking cessation intervention program was selected as a “model” evidence-based program by the Substance Abuse and Mental Health Services Administration (SAMSHA), as of 2004. The school-based clinic version has begun to be disseminated nationwide, as one of only two “model” teen tobacco use cessation programs.

The other “model” program is Not On Tobacco (NOT) (Horn, Dino, Kalsekar, & Fernandes, 2004; Horn, Dino, Kalsekar, & Mody, 2005). Developed in collaboration with the West Virginia University Prevention Research Center, NOT is designed for 14- to 19-year-old youth who are daily smokers and volunteer to participate in 10- to-12 member groups in school or community settings. NOT includes 10 hour-long weekly sessions and 4 booster sessions, delivered to males and females separately by same gender, trained facilitators (from the American Lung Association). NOT is based on social cognitive theory.

In NOT, participants are assisted with (a) identifying reasons (including gender-specific reasons) for smoking and excuses for not quitting (myths and truths), beliefs and behaviors that reinforce smoking, triggers for smoking, beliefs and behaviors that reinforce negative self talk, self-defeating behaviors, and barriers to the quitting process; (b) recognizing and understanding the process of nicotine addiction, advertising ploys to encourage youth smoking, and situations that may enhance the likelihood of relapse; and (c) social support identification, seeking, and maintenance, goal setting, assertiveness, and making a personal commitment to quit. The program uses role playing and rehearsal (e.g., on seeking social support), journaling, and relaxation techniques (i.e., deep breathing, progressive muscle relaxation). NOT promotes positive social experiences through group interactions, team building activities, and peer support. This program also encourages males and females to pursue a healthy diet and exercise.
Both NOT and EX involve motivation-coping skills-commitment material which composes what is currently considered efficacious teen tobacco use cessation programming (Milton et al., 2004). NOT differs from EX in that it is gender-specific, consists of a greater number of sessions, does not include yoga or meditation type activities, and does not include games and talk show activities. On the other hand, NOT makes use of journaling, which is not part of Project EX. Methodologically, Project EX has been investigated primarily though experimental studies and NOT has been evaluated primarily through quasi-experimental studies (that involve many more replications). NOT has the support of the ALA, an incredible means of dissemination and subsidization of implementation of programming. Both programs have produced noticeable effects on cessation, generally doubling quit rates compared to a standard care control condition.

Based on the results of the current study, it appears that a cessation/prevention classroom program for older, high risk teens shows promise. Project EX-4 now may have solved the recruitment difficulty in teen cessation by offering programming in a high school classroom context. Still, there are several remaining limitations of Project EX-4. The classroom adaptation has not been attempted in regular high school settings. This is important since smoking prevalence and exposure is much lower in such settings. One may ponder whether or not the classroom-adapted program would be well-received in general youth population settings. Second, the cessation programming has been found to work best for youth relatively low in nicotine dependence (e.g., Sussman et al., 2001). Facilitating programming that might work for youth in who are strongly addicted to nicotine is needed and this may involve more controlled settings such as inpatient treatment (or sober high schools). More generally, there is plenty of room for improvement on cessation rates. Project EX-4 still has not approached a 50% initial quit rate found in the best of the adult programs (Sussman, 2002). Third, most Project EX studies have been conducted in California. Its generalization to other locations is not well-tested. Finally, the dissemination of Project EX is not known. The ability of school teachers to implement the program has not yet been tested.

It does appear that one can adapt the school-clinic based program to the classroom-based program context, and render both smoking prevention (in non-smokers) and smoking cessation (in smokers) effects. The 7% absolute reduction in weekly or monthly smoking, as applied to this classroom sample of approximately 700 teens, would seem to provide a greater overall effect \((n=49)\) than applying the program to 9% absolute quit rate among 259 youths exposed to our earlier cessation clinic program \((n=23)\) (Sussman et al., 2001). Certainly, replications of this classroom modality are needed. However, if this type of programming can be widely disseminated to high school youth, it would offer an answer to the need of effective teen tobacco use cessation programming on a broad scale.

**Acknowledgment**

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**References**


Corrigendum

Corrigendum to “Six-month and 1-year Effects of Project EX-4, A Classroom-Based Smoking Prevention and Cessation Intervention Program” [Addictive Behaviors 32/12 (2007) 3005–3014]

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The authors regret that in the above mentioned article quit rate information was omitted. The data was re-evaluated among the 457 subjects who smoked during the last 30 days before the baseline survey. It was found that the intent-to-treat last 30-day smoking quit rate in the control group (n = 213) was 12.8%, 24.8%, and 24.3% at the immediate post-test, six-month, and one-year follow-ups, respectively; the quit rates in the “EX” treatment group (n = 244) were 25.3%, 30.6%, and 30.7%, respectively. The data thus revealed that the EX classroom program was effective at reducing smoking along a full range of smoking behavior; it also was a statistically significant smoking cessation program.

Effects of EX4 on Smoking Cessationa b

<table>
<thead>
<tr>
<th></th>
<th>Immediate post-test</th>
<th>Six-month</th>
<th>One-year</th>
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<tr>
<td>Quit Rate</td>
<td>Control</td>
<td>Treatment</td>
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<tr>
<td></td>
<td>12.8%</td>
<td>25.3%</td>
<td>24.3%</td>
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<tr>
<td></td>
<td>24.8%</td>
<td>30.6%</td>
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<tr>
<td>Net % Change</td>
<td>−12.6%</td>
<td>−5.8%</td>
<td>−6.3%</td>
</tr>
<tr>
<td>OR (95% CI)</td>
<td>0.38 (0.22–0.64)</td>
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<td>0.66 (0.43–1.00)</td>
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<tr>
<td>p</td>
<td>0.004</td>
<td>0.12</td>
<td>0.05</td>
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Notes:

a Intention to treat principle is applied, all subjects with missing smoking status at follow-ups were assumed to be smokers.
b Adjusted for age, gender, ethnicity, and Fagerstrom nicotine dependence score at baseline.
c One-tailed p value for the program minus control quit effect.

The authors would like to apologise for any inconvenience this may have caused to readers of this article.